

# Embodied Carbon Calculator: Basic Report

(CIBSE TM65 Digital Tool)



If Section A of the 'Input' tab is correctly completed, the results will be shown here.

Please complete all purple and yellow cells.

If you would like to assist CIBSE in building knowledge on the embodied carbon of products used in building services, please complete as directed, name this file as instructed in the 'Introduction and Instructions' tab, and email this file to embodiedcarbon@cibse.org.

## Basic report for [LT-SEN-R3]Reference Sensor, Gen 3 as manufactured by Honeywell

| Basic calculation                          |                                    | Notes/source    |
|--------------------------------------------|------------------------------------|-----------------|
| Date of assessment                         | 09/06/25                           | Form "dd/mm/yy" |
| Name of assessor and assessor organisation | Self Assessment                    |                 |
| Contact email address of assessor          | sustainabilitycoe.ba@honeywell.com |                 |

| Product information                                                |                                       |                          |
|--------------------------------------------------------------------|---------------------------------------|--------------------------|
| Type of product                                                    | Sensors                               |                          |
| Capacity of equipment/size (kW; m <sup>3</sup> ; litre; etc.)      | m <sup>3</sup>                        |                          |
| Product weight (kg)                                                | 0.07 kg                               |                          |
| Material % breakdown for at least 95% of the product weight? (Y/N) | Y                                     |                          |
| Product service life (years)                                       | 10 Years                              |                          |
| If refrigerant based, type of refrigerant used and GWP             | No refrigerant, 0 kgCO <sub>2</sub> e |                          |
| Refrigerant charge (kg)                                            | 0.00 kg                               |                          |
| Product complexity category                                        | Category 2                            | See CIBSE TM65 Table 4.3 |

| Embodied carbon results (kg CO <sub>2</sub> e) – without refrigerant leakage                            |                       |  |
|---------------------------------------------------------------------------------------------------------|-----------------------|--|
| A1: Material extraction (original product)                                                              | 3 kgCO <sub>2</sub> e |  |
| A1: Material extraction (components that are replaced in B3)                                            | 0 kgCO <sub>2</sub> e |  |
| A1-A4, B3, C2-C4: Total embodied carbon with scale-up and buffer factor (excluding refrigerant leakage) | 6 kgCO <sub>2</sub> e |  |

| Embodied carbon result (kg CO <sub>2</sub> e) – refrigerant leakage only         |                       |                     |
|----------------------------------------------------------------------------------|-----------------------|---------------------|
| B1 (refrigerant leakage during use) +<br>C1 (refrigerant leakage at end of life) | 0 kgCO <sub>2</sub> e | TM65 leakage Type 2 |

| Embodied carbon result with 'basic' calculation method (kg CO <sub>2</sub> e) – total |                       |  |
|---------------------------------------------------------------------------------------|-----------------------|--|
| Result of 'basic' calculation method                                                  | 6 kgCO <sub>2</sub> e |  |

| Assumptions                                   |                              |                                            |
|-----------------------------------------------|------------------------------|--------------------------------------------|
| A1: Material carbon coefficient source        | CIBSE TM65, Table 2.1        | E.g: Source = CIBSE TM65, Table 2.1        |
| B1: Refrigerant annual leakage rate (%)       | CIBSE TM65, Table 4.4 Type 2 | E.g: Source = CIBSE TM65, Table 4.4 type 2 |
| C1: Refrigerant end of life recovery rate (%) | CIBSE TM65, Table 4.4 Type 2 | E.g: Source = CIBSE TM65, Table 4.4 type 2 |
| B3: Materials replaced as part of repair (%)  | CIBSE TM65, Table 2.1        | E.g: Source = CIBSE TM65, Table 2.1        |

| Details                             |                                                                                                                                                                                                                           |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Please provide any relevant details | <p>***** Final result of 'basic' calculation method 5.9107 kgCO<sub>2</sub>e</p> <p>Note: Due to CIBSE Calculator limitation the result field displays the rounded off values, please refer here for accurate results</p> |

| Information disclosure                                                                                                                                                     | Select Yes if you agree | Notes |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|
| I consent to CIBSE's use of the data contained in this form for research purposes, on the condition that all identifying information is removed from any published output. | No                      |       |
| I consent to CIBSE's use of the data contained in this form in order to establish an embodied carbon database for products used in building services.                      | No                      |       |